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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/843,911	04/30/2001	Koji Fukunaga	862.C1991	9857

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NEW YORK, NY 10112

EXAMINER
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HO, DUC CHI

ART UNIT	PAPER NUMBER
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2665

DATE MAILED: 06/14/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

09/843,911

Applicant(s)

FUKUNAGA ET AL.

Examiner

Duc C. Ho

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 29 March 2005.  
2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.  
3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1 and 69-115 is/are pending in the application.  
4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.  
5) ☒ Claim(s) 105-113 is/are allowed.  
6) ☐ Claim(s) 1, 69-82, 84-104, 114 and 115 is/are rejected.  
7) ☒ Claim(s) 83 is/are objected to.  
8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.  
10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).  
11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☒ All b) ☐ Some \* c) ☐ None of:  
1. ☒ Certified copies of the priority documents have been received.  
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).  
\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)  
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)  
3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date 10/03/08/02:10/01.  
4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.  
5) ☐ Notice of Informal Patent Application (PTO-152)  
6) ☐ Other: \_\_\_\_\_.

***Withdrawal of Previous restriction requirement***

1. Applicant's remark about the require restriction is persuasive. The require restriction/election presented in the last office action is hereby withdrawn.

***Claim Rejections - 35 USC § 103***

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains.

Patentability shall not be negated by the manner in which the invention was made.

3. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103© and potential 35 U.S.C. 102(f) or (g) prior art under 35 U.S.C. 103(a).

4. Claims 1, 69-82, 84-92, 101, 114-115 are rejected under 35 U.S.C. 103(a) as being unpatentable over Domon (US 6,678,781), in view of Takeda et al. (US 6,5112,767-IDS record), hereinafter referred to as Takeda.

Regarding claim 78, Domon discloses network configuration method. In Domon a node 60 creates a network topology map, for example the network topology map in fig. 14B, is updated when a field in a node ID map 14A is changed, wherein the update reflects an occurrence of a bus reset, see col. 11, lines 17-48.

*at least two portals respectively connected to different serial buses (a portal A connected to Bus 50-fig. 13B, and a portal C connected to Bus 52-fig.13B, see col. 10-line 59 to col. 11-line 59);*

*a registration table ( a network topology map fig.14B created within a bridge manager 60 or 61-fig. 13B, see col. 11, lines 16-67) for registering serial bus specifying information and information of a connected node (for collecting information from the node ID map 14 A, which includes the information of a node IDs and a bus IDs connected to the bridge manager) for each connected serial bus;*

Domon, however, does not expressly teach monitoring means for monitoring bus reset on the serial bus connected to each portal.

Takeda discloses transmission medium connecting device, controlling device, controlled device, and storage medium.

In Takeda the monitoring means 602-fig. 6 is responsible for monitoring a bus reset connected to the first and second transmission media 607, and 609-fig. 6, see col. 18, lines 8-22. When a bus reset detected, for example in the medium 607, the

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notifying means 604-fig. 6 will notify to the notification receiving means 615, 612 of the controlled device 607 and the controlling device 610.

One skill in the art would recognize the advantage of having a notifying means for notifying an occurrence of a bus reset to a network topology map so that registered information associated with node IDs and bus IDs within the map can be updated reflecting a change resulted from the bus reset.

The suggestion/motivation for doing so would have been to provide a mechanism for updating bus reset that occurs on any serial bus connecting to a bridge to a network topology map ensuring high reliability of the bridge manager.

Therefore, it would have been obvious to combine Takeda with Domon to obtain the invention as specified in claim 78.

Regarding claim 79, in Domon the node ID map in figure 14A includes the information of a bus ID assigned to each bus, and the node ID information, see col. 11, lines 16-48.

Regarding claim 80, in Domon the network topology map includes for each bus all node IDs connected to the bus in association with a bus ID, see col. 7-line 15 to col. 9-line 52.

Regarding claim 81, please see the rejection of claim 78, the notifying means of Takeda is the claimed communication management means.

Regarding claim 82, please see the rejection of claim 78, in Takeda the notifying means 604-fig. 6 is capable of communicating an occurrence of a bus reset on the

medium 607 where the controlled device 608 connected to to the mean 615-fig. 6 of the controlling device 610.

Regarding claim 84, please see the rejection of claim 78, in Takeda the first request accepting means is the notification request reception means of the claimed invention, and the notifying means 604-fig. 6 is the notification means of the claimed invention.

Regarding claim 85, in Domon the transmission medium buses and the bridge managers are compliant with IEEE 1394.

Claims 86-90, and 92 have similar limitations as claims 78-82, and 85, respectively. Therefore, they are rejected under Domon-Takeda for the same reasons set forth in the rejection of claims 78-82, and 85.

Claim 91 has similar limitations as claim 81. Therefore, it is rejected under Domon-Takeda for the same reasons set forth in the rejection of claim 81.

Claim 1 has similar limitations as claim 78. Therefore, it is rejected under Domon-Takeda for the same reasons set forth in the rejection of claim 78.

Regarding claim 69, the network topology map in fig. 14B of Doman includes addresses of the nodes connected to the bus (50, or 54-fig. 13B), wherein each address is used as a register. When an occurrence of the bus reset occurs for example at the bus 50, the network topology map receives a network update occurrence from the nodes connected to the bus 50.

Regarding claim 70, in Doman the communication control network includes a communication control bus complying with IEEE 1394.

Regarding claim 71, Doman discloses all claimed limitation, except a predetermined register is arranged in a core CSR architecture register space in an address space of the information signal processing apparatus connected to each communication control bus complying with IEEE 1394.

Takeda discloses an asynchronous packet undergoing a transmission and reception processes as an access to a CSR (Control and Status Register) address space, which is defined in IEEE 1394, see col. 2-line 27 to col. 3-line 50.

One skill in the art would recognize the advantage of employing CSR address space so that a packet can be defined for performing a writing or reading operation on a defined address space.

The suggestion/motivation for doing so would have been to perform reading or writing operation on an address space that is defined within a node connecting to a bus having a virtual 48-bits address space.

Therefore, it would have been obvious to combine Takeda with Domon to obtain the invention as specified in claim 71.

Regarding claim 72, please see the rejection of claim 71. Takeda discloses an address is arranged in an address space and complying with IEEE 1394, see col. 2-line 27 to col. 3-line 50.

Claims 73-75 have similar limitations as claims 1, 69-70, respectively. Therefore, they are rejected under Domon-Takeda for the same reasons set forth in the rejection of claims 73-75.

Claim 76 has similar limitations as claim 78. Therefore, it is rejected under Domon-Takeda for the same reasons set forth in the rejection of claim 78.

Regarding claim 77, please see the rejection of claim 76. In Takeda when bus reset occurs on the bus 607-fig. 6 the connecting device 601 notifies the occurrence of the bus reset to the controlling device 610.

Claim 101 has similar limitations as claim 78. Therefore, it is rejected under Domon-Takeda for the same reasons set forth in the rejection of claim 78. The computer-readable storage medium is inherently included in the bridge.

Claims 114-115 has similar limitations as claim 78. Therefore, they are rejected under Domon-Takeda for the same reasons set forth in the rejection of claim 78. The computer-readable storage medium is inherently included in the bridge of Domon.

5. Claims 93-100, and 102-104 are rejected under 35 U.S.C. 103(a) as being unpatentable over Takeda, in view of admitted prior art of the instant application on page 4, lines 10-15:

Regarding claim 93, referring to figure 3, the apparatus information list 302, the apparatus information collecting means 303, the information outputting means 304 constitute the claimed connection device for connecting the first portal including the means 310/311 to the bus 315 to the second portal including the means 312/313. The information outputting means 304 performs as a proxy means for performing a notification of a bus reset to the controlled device 316, instead of the controlling device 314.

Takeda, however, does not disclose expressly the DDP (Direct Print Protocol).



The admitted prior art on page 4, lines 10-15 discloses DDP.

One skill in the art would recognize the advantage of the mechanism of DDP into the bridge of Takeda since the DPP is designed for direct connection with a printer.

The suggestion/motivation for doing so would have been enabling a device, when bus reset occurs, to establish a connection at the start of data transfer issuing a reset command, and the other device returns an acknowledge upon reception of the command, thereby restarting data transfer.

Therefore, it would have been obvious to combine the DPP taught by the admitted prior art with the system of Takeda to obtain the invention as specified in claim 93.

Regarding claim 94, all the components in figure 3 are compatible with IEEE 1394.

Claims 95-96 have similar limitations as claims 93-94, respectively. Therefore, they are rejected under Takeda-Admitted Prior Art for the same reasons set forth in the rejection of claims 93-94.

Claims 97-98 have similar limitations as claims 93-94, respectively. Therefore, they are rejected under Takeda-Admitted Prior Art for the same reasons set forth in the rejection of claims 93-94.

Claims 99-100 have similar limitations as claims 93-94, respectively. Therefore, they are rejected under Takeda-Admitted Prior Art for the same reasons set forth in the rejection of claims 93-94.

Claims 102-104 have similar limitations as claim 93. Therefore, they are rejected under Takeda-Admitted Prior Art for the same reasons set forth in the rejection of claim 93. The computer-readable storage medium is inherently included in the bridge.

### ***Allowable Subject Matter***

6. Claims 105-113 are allowed.
7. Claim 83 is objected to as being independent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

### ***Conclusion***

8. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Staats (US 5,764,930); Sawada (US 6,735,619) are cited to show an information communication system, information communication method, information signal processing device and information signal processing method, and storage medium, which is considered pertinent to the claimed invention.
9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Duc Ho whose telephone number is (571) 272-3147. The examiner can normally be reached on Monday through Friday from 7:00 am to 3:30 pm.

If attempt to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Huy Vu, can be reached on (571) 272-3155.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Group receptionist whose telephone number is (571) 272-2600.

The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

10. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Patent Examiner

A handwritten signature in black ink, appearing to read 'Duc Ho', written over the printed name.

Duc Ho

09-10-05